

## IN THE SPECIFICATION

**Please amend the following paragraphs beginning at page 5, line 21 as follows:**

To achieve the above object, according to a first aspect of the present invention, there is provided a ~~target practice~~ laser transmitting/receiving system for target practice comprising a laser transmitter provided with a modulator for modulating a laser signal by position information of the laser transmitter side and a laser receiver provided with an information extractor for extracting position information from ~~the shot~~ a received laser signal and a judgment unit for judging the shot effect ~~of a shot from the laser transmitter~~ using the extracted position information.

According to the first aspect, the positional relationship between the transmitter side and the receiver side can be reflected in the shot judgment.

According to a second aspect of the present invention, ~~there is provided a system of the first aspect wherein the laser transmitter is a shooting side apparatus receiving a shot trigger signal from a shooting apparatus of a weapon and transmitting a shot~~ transmits the modulated laser signal ~~in the shot direction. Further, the shooting side apparatus is provided with a shooting side position finder for generating position information and a shooting side recording apparatus for continuously recording the position information output from the shooting side position finder and is designed to transmit not only the ID number of the shooting side apparatus, the shot weapon type information, and the shot munition type information, but also the position information of the shooting side apparatus output from the shooting side position finder included in the shot laser signal in response to receipt of a shot trigger signal from the shooting apparatus of the weapon.~~

~~According to this second aspect, the positional relationship between the shooting side apparatus and the target side apparatus, the difference in distance, the shot munition type, and the shot weapon type can be reflected in the shot judgment.~~

~~According to a third aspect of the present invention, there is provided a system of the second aspect wherein the shooting side position finder also generates time information of the time the shooting side position finder generated the position information of the laser transmitter side is position information, the shooting side recording apparatus continuously records the time information output from the shooting side position finder as well, and the transmitter transmits not only the position information of the shooting side apparatus, but also the time information output from the a shooting side position finder included in the shot laser signal in response to receipt of a shot trigger signal from the shooting apparatus of the weapon of the laser transmitter side.~~

~~According to this third aspect, the positional relationship and difference in distance between the shooting side apparatus and the target side apparatus can be reflected in the shot judgment corresponding to the time.~~

~~According to a fourth aspect of the present invention, the laser receiver is a target side apparatus for receiving the shot laser signal from the laser transmitter and judging the shot effect; said target side apparatus is provided with a target side position finder for generating position information of said target side apparatus, a target side recording apparatus for continuously recording position information output from the target side position finder, and a munition type parameter recorder for recording the munition type parameters necessary for calculation of a hit risk range for each shot munition type and uses the position information of the target side apparatus obtained from the target side position finder when receiving a shot laser signal transmitted by the shooting side apparatus, the shot weapon type information included in the shot laser signal transmitted by the shooting side apparatus obtained from the munition type parameter recorder, and~~

~~munition type parameters including the velocity of the shot munition recorded for each shot munition type information, the plurality of ranges of tracking of a target by a shot munition set for the different states of damage, and the effective time or effective range of the shot munition to calculate and record the hit risk range by a coordinate range of a 3D reference system and compares the recorded hit risk range and position of the target side apparatus obtained from the target side position finder so as to judge the shot effect. the position information is the latest (most recent) position information in the continuously recorded position information.~~

~~According to the second to fourth aspects, the positional relationship between the shooting side apparatus and the target side apparatus, the difference in distance, the shot munition type, and the shot weapon type can be reflected in the shot judgment fourth aspect, the shot weapon type, the shot munition type, and the hit risk range can be calculated by a coordinate range of a 3D reference system.~~

~~Further, by comparing the calculated hit risk range and the position of the target side apparatus obtained by the target side position finder so as to judge the shot effect, it becomes possible to judge the shot effect including the difference in distance between the shooting side apparatus and the target side apparatus, the shot munition type, the shot weapon type, and the evasive action of the target side apparatus.~~

~~According to a fifth aspect of the present invention, there is provided the fourth aspect wherein the target side position finder also generates time information of the time of generation of the position information, the target side recording apparatus also records time information output from the target side position finder, the hit risk range is calculated and recorded for each predetermined elapsed time from a shot, and the shot effect is judged for every predetermined elapsed time from a shot.~~

~~According to the fifth aspect, the shot effect can be judged every predetermined elapsed time from a shot.~~

According to a sixth aspect of the present invention, there is provided the fourth or fifth aspect wherein the target practice laser transmitting/receiving system is further provided with a munition type parameter write apparatus for preparing munition type parameters required for calculation of the hit risk range and writing them in the target side apparatus, and said munition type parameter write apparatus is provided with a means for preparing and recording the munition type parameters for each shot weapon type information and shot munition type information and writing them in the munition type parameter recorder of the target side apparatus.

According to the sixth aspect, it becomes possible to write the munition type parameters required for calculation of the hit risk range in the munition type parameter recorder of the shooting side apparatus.

According to a seventh aspect of the present invention, there is provided the fifth aspect wherein the shooting side apparatus is further provided with a terrain recorder for recording coordinate ranges of the 3D reference system of terrain based safe regions, calculates and records a shot heading based on position information of the target side apparatus obtained from the target side position finder for each elapse of a predetermined time from receiving a shot laser signal transmitted from the shooting side apparatus and position information of the shooting side apparatus obtained from the shot laser signal transmitted by the shooting side apparatus, and compares the coordinate ranges of the 3D reference system of the terrain based safe regions recorded by the terrain recorder for each heading at which the target side apparatus is shot and the position of the target side apparatus obtained from the target side position finder so as to judge the shot effect.

According to the seventh aspect, it becomes possible to also reflect the effect of evasive action utilizing the terrain, such as the target side hiding behind a hill, in the judgment of the shot effect.

~~According to an eighth aspect of the present invention, the target practice laser transmitting/receiving system is further provided with a terrain write apparatus for calculating and recording terrain-based safe regions for each heading at which the target side apparatus is shot and writing them in the target side apparatus, and the terrain write apparatus is provided with a means for calculating and recording safe regions caused by specific terrain able to be used for evasive action of a shot in actual practice grounds, that is, projecting terrain and recessed terrain, for each heading at which the target side apparatus is shot as the range giving a dead angle from the shooting side apparatus and arranging them on a map of the practice grounds matched with terrain of the practice grounds so as to calculate and record the terrain-based safe regions by coordinate ranges of the 3D reference system and a means for writing the calculated terrain-based safe regions in the terrain recorder of the shooting side apparatus.~~

~~According to the eighth aspect, it becomes possible to write the calculated terrain-based safe regions in the terrain recorder of the shooting side apparatus.~~

~~According to a ninth aspect of the present invention, the shooting side apparatus is further provided with a shot simulator including a plurality of smoke generators of different smoke colors for simulating a shot when receiving a shot trigger signal of a weapon and changes the color of the smoke to simulate a shot by selection of one of the plurality of smoke generators in accordance with the shot munition type.~~

~~According to the ninth aspect, by changing the color of the smoke in accordance with the shot munition type to simulate a shot, it is possible for the operator at the target side to visually confirm the shot weapon type and the shot munition type.~~

~~According to a 10th aspect of the present invention, the target side apparatus is further provided with a smoke generator and changes the amount of smoke in accordance with the results of judgment of the shot effect to simulate the damage.~~

~~According to the 10th aspect, by changing the amount of smoke in accordance with the extent of damage for simulation when results of the judgment of the shot effect are in, the operator at the shooting side can visually confirm the extent of damage.~~

~~According to an 11th aspect of the present invention, the target side apparatus is provided with an evasive action recorder for recording evasive action of the target side apparatus when receiving a shot laser signal transmitted by the shooting side apparatus and records in the evasive action recorder the position of the target side apparatus for every elapse of a predetermined time from receiving the shot laser signal transmitted by the shooting side apparatus, position of the shooting side apparatus, position of the shot munition, a plurality of ranges of tracking of a target by a shot munition set for the different states of damage, the heading at which the target side apparatus was shot, and the results of judgment of the shot effect.~~

~~According to the 11th aspect, data for reevaluation of the target practice after the target practice can be held in the evasive action recorder.~~

~~According to a 12th aspect of the present invention, the system is further provided with an evasive action evaluation apparatus for reading and displaying the path of movement of the target side apparatus recorded when the target side apparatus is shot at, said evasive action evaluation apparatus provided with a means for reading the position of the target side apparatus recorded in the evasive action recorder of the target side apparatus, position of the shooting side apparatus, position of the shot munition, plurality of ranges of tracking of a target by a shot munition set for the different states of damage, heading at which the target side apparatus is shot, and results of judgment of the shot effect and a means for displaying and recording the position of the shooting side apparatus, heading at which the target side apparatus is shot, hit risk range, path of the target side apparatus, and results of judgment of the shot effect for a predetermined elapsed time after shooting by the read data.~~

~~According to the 12th aspect, the effect of a shot and the evasive action of the target side apparatus can be reevaluated after the practice.~~

~~According to a 13th aspect of the present invention, there is provided the first aspect wherein the laser receiver is a target side apparatus receiving a shot laser signal from the laser transmitter to judge the shot effect; and said target side apparatus is provided with a target side position finder for generating position information of said target side apparatus and a target side recording apparatus for continuously recording the position information output from the target side position finder and is designed to calculate the difference in distance between the shooting side apparatus and the target side apparatus at the time of a shot from the position information of the target side apparatus obtained by the target side position finder and position information of the shooting side apparatus obtained from the shot laser signal transmitted by the shooting side apparatus and judge the extent of damage in accordance with the difference in distance when receiving a shot laser signal transmitted by the shooting side apparatus and when the modulated shot weapon type information included in the shot laser signal transmitted by the shooting side apparatus indicates a small weapon such as a rifle or pistol.~~

~~According to the 13th aspect, in target practice by a rifle, pistol, or other small weapon, it is possible to impart a difference to the extent of damage in accordance with the difference in distance between the shooting side and the target side when judging the shot effect. Due to this, not only in target practice, but also in man-to-man shooting simulation games etc. in attractions at amusement centers, the invention can be used for setting the power of simulated weapons in accordance with the difference in distance between a shooter and a target.~~

~~According to a 14th aspect of the present invention, there is provided the 13th aspect wherein the target side position finder also generates time information of the time~~

~~when the target side position finder generated the position information, and said target side recording apparatus also continuously records the time information output from the target side position finder.~~

~~According to the 14th aspect, the positional relationship and difference in distance between the shooting side apparatus and the target side apparatus in the 13th aspect can be reflected in the judgment of the shot corresponding to time.~~

~~According to a 15th aspect of the present invention, there is provided the third aspect wherein the laser receiver is a target side apparatus receiving a shot laser signal from the laser transmitter to judge the shot effect; and said target side apparatus is provided with a target side position finder for generating position information of said target side apparatus, a target side recording apparatus for continuously recording the position information output from the target side position finder, a means for detecting, updating, and recording the heading which the target side apparatus faces, and a means for calculating the heading shot at from the shooting side position information obtained from the shot laser signal transmitted by the shooting side apparatus and combining this with the heading which the target side apparatus faces to judge a damaged part when receiving the shot laser signal transmitted by the shooting side apparatus and judging the shot effect.~~

~~According to the 15th aspect, by comparing the heading shot at and the heading which the target side apparatus faces, it becomes possible to specify the damaged part when judging the shot effect. Due to this, not only in target practice, but also in man-to-man or vehicle-to-vehicle shooting simulation games etc. in attractions at amusement centers, the invention can be used for specifying a hit part.~~

~~According to a 16th aspect of the present invention, there is provided the fourth aspect wherein the system is provided with damage simulators comprised of smoke generators, vibrators, and speakers for simulation at a plurality of parts of the target side~~



~~apparatus and is designed to simulate damage by a simulator in the vicinity of a damaged part in accordance with the judgment of a damaged part.~~

~~According to the 16th aspect, by providing a plurality of damage simulators comprised of smoke generators, vibrators, speakers, etc. for simulating damage at different parts and simulating a damaged part by a simulator in the vicinity in accordance with judgment of that part, it becomes possible for the operator at the shooting side and the operator at the target side to confirm a damaged part. Due to this, not only in target practice, but also in man to man and vehicle to vehicle shooting simulation games etc. in attractions at amusement centers, the invention can be used to specify a hit part.~~

~~According to a 17th aspect of the present invention, there is provided the third aspect wherein the laser receiver is a target side apparatus receiving a shot laser signal from the laser transmitter to judge the shot effect; and said target side apparatus is provided with a target side position finder for generating position information of said target side apparatus, a target side recording apparatus for continuously recording the position information output from the target side position finder, and a self recognizing means for comparing the position information of the target side apparatus and the position information of the shooting side obtained from the shot laser signal transmitted by the shooting side apparatus when receiving a shot laser signal transmitted by the shooting side apparatus and, when the position information are the same, deeming that a shot laser signal transmitted by the target side apparatus has been received by the target side apparatus and not judging the shot effect.~~

~~According to the 17th aspect, it becomes possible to prevent mistaken judgment of the shot effect due to mistaken reception of a laser signal due to reflection etc. without setting an ID number for each shooting side apparatus. Due to this, not only in target practice, but also in attractions at amusement centers, there is no longer a need for initialization to give an ID number to each player using a simulated weapon.~~

~~According to an 18th aspect of the present invention, there is provided the 17th aspect wherein the target side position finder also generates time information of the time when the target side position finder generated the position information, and the target side recording apparatus also continuously records the time information output from the shooting side position finder.~~

~~According to the 18th aspect, it is possible to reflect the positional relationship and difference in distance between the shooting side apparatus and the target side apparatus in the judgment of a shot corresponding to the time.~~

According to the present invention, a laser transmitter for target practice and a laser receiver for target practice in the above-mentioned target practice laser transmitting/receiving system are also provided.

Further, according to the present invention, there is provided a controller for transmitting position information to a laser transmitter provided with a modulator for modulating a laser signal by position information, wherein, in response to a shot trigger signal from a shooting apparatus of a weapon, position information of the modulator is transmitted to the laser transmitter.

**Please amend page 28, line 21 as follows:**

~~(Second Embodiment Corresponding to Claims 4 and 5)~~

**Please amend page 37, line 22 as follows:**

~~(Third Embodiment Corresponding to Claim 6)~~

**Please amend page 40, line 16 as follows:**

~~(Fourth Embodiment Corresponding to Claim 7)~~

**Please amend page 44, line 35 as follows:**

(Fifth Embodiment ~~Corresponding to Claim 8~~)

**Please amend page 57, line 25 as follows:**

(Sixth Embodiment ~~Corresponding to Claim 9~~)

**Please amend page 58, line 27 as follows:**

(Seventh Embodiment ~~Corresponding to Claim 10~~)

**Please amend page 59, line 23 as follows:**

(Eighth Embodiment ~~Corresponding to Claim 11~~)

**Please amend page 64, line 17 as follows:**

(Ninth Embodiment ~~Corresponding to Claim 12~~)

**Please amend page 65, line 9 as follows:**

(Tenth Embodiment ~~Corresponding to Claims 13 and 14~~)

**Please amend page 66, line 32 as follows:**

(Eleventh Embodiment ~~Corresponding to Claim 15~~)

**Please amend page 68, line 6 as follows:**

(Twelfth Embodiment ~~Corresponding to Claim 16~~)

**Please amend page 69, line 25 as follows:**

(Thirteenth Embodiment ~~Corresponding to Claim 17~~)